

UNITED STATES MARINE CORPS
Logistics Operations School
Marine Corps Combat Service Support Schools
PSC Box 20041
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STUDENT OUTLINE

COURSE TITLE: RESERVE LOGISTICS OFFICER COURSE

LESSON TOPIC NUMBER: RLO D107d

LESSON TOPIC: TRANSPORTATION, HANDLING, AND FIELD STORAGE OF
AMMUNITION

LESSON TIME: 1.5 HOURS.

INSTRUCTIONAL REFERENCES:

1. MCO P8020.10A, Marine Corps Ammunition Management and Explosive Safety Policy Manual
2. NAVSEA OP 5 Vol 1, Seventh revision, Ammunition and Explosives Ashore; Safety Regulations for Handling, Storing, Production, Renovation, and Shipping
3. NAVSEA SWO20-AC-SAF-010, Transportation and Storage Data for Ammunition, Explosives, and Related Hazardous Material
4. NAVSEA SWO20-AF-ABK-010, Motor Vehicle Driver and Shipping Inspectors's Manual for Ammunition, Explosives, and Hazardous Material
5. OPNAVINST 5530.13, Department of the Navy Physical Security for Sensitive Conventional Arms, Ammunition, and Explosives

OVERVIEW: *The purpose of this class is to familiarize the student with the regulations and duties associated with the transportation of ammunition and those associated with handling and storing ammunition.*

LEARNING OBJECTIVES

a. Terminal Learning Objective: Given commander's guidance, unit T/O&E, and the references, supervise a unit ammunition account, to ensure requirements are accurately calculated and maintained to support mission requirements. (0402.01.03)

b. Enabling Learning Objective:

(1) Given commander's guidance, the billet of the unit ordnance officer, a written test, and the references, identify requirements for the transportation of ammunition, per the references. (0402.01.03c)

(a) Identify unit transportation responsibilities.

(b) Identify vehicle requirements.

(c) Identify the requirements for transportation of ammunition and explosives.

(d) Identify the requirements for explosive drivers.

(e) Identify the vehicle safety guidelines.

(f) Identify the security requirements for transportation of ammunition.

(2) Given commander's guidance, the billet of the unit ordnance officer, a written test, and the references, identify the requirements for field storage and handling of ammunition, per the references. (0402.01.03d)

(3) Given commander's guidance, the billet of the unit ordnance officer, a written test, and the references, identify the handling procedures for ammunition, per the references. (0402.01.03e)

1. UNIT TRANSPORTATION RESPONSIBILITIES. Generally, units have the following responsibilities regarding ammunition transportation:

a. Requesting or providing transportation and armed security as appropriate for all movements of Class V(W) material.

b. Requesting or providing transportation for the return of unexpended ammunition, brass, empty ammunition containers, and salvageable components.

c. Transporting and securing ammunition within maneuver areas in connection with field training and firing exercise.

d. Ensuring that all vehicular security and safety requirements are followed.

e. Providing a working party with an appropriate number of personnel to expedite loading of unit vehicles when required.

f. Providing a means of securing the load, (i.e. tie downs) in order to prevent shifting in transit.

g. Ensuring that local off base requirements are known and applied.

2. VEHICLE REQUIREMENTS FOR TRANSPORTING AMMUNITION

a. Authorized Vehicles. All tactical cargo vehicles with firewalls and tactical trailers are acceptable for transporting explosives provided the ammunition or explosives are packed in the original containers. If the ammunition is not in original containers, wooden dunnage/planking must be used to protect the ammunition or explosive from ferrous metal bed of the vehicle. Dunnage must be used when transporting fiber containers with metal ends to ensure that the metal ends do not contact metal truck beds. The following is a list of vehicles that are authorized to transport ammunition and explosives:

(1) Amphibious cargo vehicles (wheeled or tracked) in the field environment.

(2) Tactical wheeled vehicles and trailers to carry ammunition or explosives provided not more than one truck and one trailer comprise a combination.

(3) Tanks carrying basic allowance (B/A), combat loaded in the field.

(4) Truck, tractor with semitrailers. Side members, end members, and fire retardant tarpaulins are required.

(5) Landing craft assigned to an amphibious exercise.

(6) Commercial vehicles, 1/2 ton or larger. Side members, end members, and fire retardant tarpaulins are required.

b. Prohibited Vehicles. The following is a general list of vehicles prohibited from transporting ammunition:

(1) Mail or parcel post vehicles, and privately owned vehicles.

(2) Passenger carrying buses.

(3) Amphibious vehicles carrying troops (except for the basic allowance carried by the individuals and for crew served weapons).

(4) Vehicles having high frequency electrical transmitting equipment.

(5) Vehicles without firewalls, (ie four door HMMV's)

c. Inspection of Vehicles

(1) Motor Pool Inspection. Prior to being dispatched, all motor vehicles transporting ammunition will be inspected by qualified personnel, and a DD form 626 will be filled out in detail through item 11. The original and one copy of the DD form 626 will remain with the driver when the vehicle is dispatched.

(2) Ammunition Magazine Inspection. Qualified personnel at the Ammunition Supply Point (ASP) will inspect all vehicles, using DD Form 626, to ensure they are free from fire hazards and are mechanically safe prior to being loaded with ammunition or explosives.

3. REQUIREMENTS FOR TRANSPORTATION OF AMMUNITION AND EXPLOSIVES

a. Placard Requirements

(1) All vehicles transporting ammunition and explosives, chemical ammunition, or other dangerous articles will display Department Of Transportation (DOT) approved EXPLOSIVE 1.1, 1.2, or 1.3 placards, as applicable. These placards will be secured to the front, rear, and both sides of the vehicle.

(2) When a vehicle contains more than one type of hazard (i.e. Explosive 1.1 and Explosive 1.3), the vehicle will display the greater hazard placard, Explosive 1.1.

(3) Explosive placards will be removed from the vehicle when ammunition is not being transported.

(4) Explosive placards will be provided by the unit furnishing the vehicle transporting the Class V(W) material.

b. Fire Extinguishers. Each vehicle transporting ammunition or explosives shall be equipped with one ten pound purple-K powder fire extinguisher having an Underwriter's Laboratory rating of 10B:C or greater or one CO₂ type, fifteen pound capacity extinguisher.

c. Required Forms/Items. Per NAVSEA SWO20-AF-ABK-010 and local SOPS, the following forms/items will be in the custody of the explosive driver for each vehicle transporting ammunition or explosives:

(1) Armed Forces Identification Card.

(2) NAVSEA SWO20-AF-ABK-010, Glove Box Edition and Appendix D.

(3) NAVMC 10627 (SD) 1265, Vehicle and Equipment Operational Record (Trip ticket).

(4) SF 91, Operators Report of Motor Vehicle Accident.

(5) DD Form 626 (6-72) Inspection Report (original and one).

(6) MUST HAVE Form 346 (OP 346); U.S. Government Motor Vehicle Operator's Identification Card with "Explosive Qualified" stamped or typed thereon and signed by proper authority. The explosive qualification must be renewed before the operator's license expires.

(7) DD Form 836 (Special Instructions for Drivers) when transporting Class V(W) over public roads within CONUS. When required, this form will be provided by the ASP personnel.

(8) Medical Examiner's Certificate (renewed every 5 years).

(9) A valid state driver's license, not necessarily from the state in which the driver is currently stationed.

(10) All safety equipment required by Chapter 4 of NAVMC SWO20-AF-ABK-010.

d. Material Handling Equipment (MHE) Operators

(1) Operators of powered MHE shall be licensed on each type of MHE for which qualified. In addition, each MHE operator shall complete a valid explosives operator's certification course and possess a current medical examiner's certificate.

(2) It is recommended that explosive MHE operators attend the Basic Explosives Safety Course within 6 months if being assigned duties involving the handling and movement of A&E.

4. REQUIREMENTS FOR EXPLOSIVE CERTIFIED DRIVERS

a. Qualifications. The following qualifications apply to explosive certified drivers transporting ammunition both on and off base:

(1) Must be 21 years old or older to transport ammunition off base over public highways and 18 years or older on base.

(2) Must have considerable and varied driving experience with the type of equipment they will be expected to operate.

(3) Be able to read, write, and understand English.

(4) Must be physically qualified in accordance with NAVSEA SWO20-AF-ABK-010.

(5) Must have attended a twelve hour Explosives Drivers Course, in accordance with NAVSEA SWO20-AF-ABK-010, and participated in subsequent biannual refresher training.

b. Training Requirements. All explosives drivers shall attend an Explosives Driver's Course and receive at least 12 hours of instruction and training in the following:

(1) Driving trucks, truck-tractors with semitrailers, and other vehicles of appropriate types.

(2) Handling and transporting hazardous materials.

(3) Regulations and procedures pertaining to transporting hazardous materials.

(4) Proper use of fire extinguishers.

(5) Completing and filing required reports.

5. VEHICLE SAFETY GUIDELINES

a. Before any ammunition is loaded or unloaded from a vehicle, the engine must be "off," the parking brake set, and the wheels chocked with a set of chock blocks.

b. No leaking or damaged Class V(W) container will be accepted for transportation.

c. Vehicles loaded with ammunition shall not be allowed to enter troop inhabited areas, to park in a public parking lot, or to stand overnight except in an authorized "holding area," etc.

d. The gross weight of ammunition loaded in a vehicle will not exceed the rated load capacity of that vehicle.

6. SECURITY REQUIREMENTS FOR TRANSPORTATION OF AMMUNITION. Ammunition which is being transported from one local area to another will be under the constant surveillance of an armed guard.

a. On Base. Security requirements for transporting ordnance on base may be satisfied by a minimum of one armed guard, in addition to the driver of the vehicle.

b. Off Base.

(1) Vehicles should have internal communication between each vehicle.

(2) Prior liaison with the principal law enforcement agencies having jurisdiction will be effected via the Base Provost Marshal before departure of any vehicle transporting ammunition.

(3) Arms and compatible ammunition will not be transported off base in the same vehicle.

(4) If ammunition is being transported 100 miles or more by government vehicle, approval must be granted by the installation commander. This is normally given through the Explosive Safety Office.

c. Category I Ammunition. Category I ammunition (TOW, AT-4, JAVELIN) must be handled with extreme care at all times because of its sensitive nature. Some additional requirements must be met when transporting Category I items on or off base:

(1) Only a SNCO or above or civilian equivalent may receipt for Cat I Ammunition.

(2) At least two armed guards must accompany ALL Cat I shipments.

(3) An extra explosive certified vehicle must accompany all off-station shipments in case the primary carrier breaks down.

(4) Category I ammunition must NEVER be left unattended.

(5) The above are minimum requirements, always check local SOPs to ensure compliance with regulations and directives.

7. STORAGE. For Marine Corps activities, the storage of A&E

ashore is generally divided into three broad categories; permanent storage, field storage, and other storage. Regardless of category, proper authority at designated levels must be obtained prior to commencing A&E operations or storing Class V.

a. Permanent storage. Those facilities built to naval Facilities Engineering Command (NAVFACENGCOM) specifications, approved by the Department of Defense Explosives Safety Board (DDESB), identified in the Installation Master Plan, and maintained and supported by host maintenance departments.

b. Field Storage. This type of storage is primarily intended as an expedient supply measure in support of training operations and exercises.

(1) The regulations for field storage of ammunition are found in the NAVSEA OP 5 VOL 1, MCO P8020.10A, and NAVSEA OP 5 VOL 3. NAVSEA OP 5 Vol 3 is intended for use during combat and outside CONUS. Approval to use the storage criteria in NAVSEA OP 5 Vol 3, must be obtained from MARCORSYSCOM (PM-EES), CMC, Naval Ordnance Safety and Security Activity (NOSSA). MCO P8020.10A provides specific guidance for submission of requests.

(2) Field storage is primarily intended for situations which require that ammunition be stored away from the standard storage environment, as during combat or field training, and is considered temporary in nature. The following applies for this type of storage:

(3) Personnel must have a thorough knowledge of both magazine and field storage regulations.

(4) Normally, no formal construction work or permanent materials will be employed. Dunnage, fire resistant canvas or tarpaulins, and stakes are used.

(5) Proper distance factors and compatibility requirements will be utilized per NAVSEA OP 5 VOL I and NAVSEA OP 5 Vol 3 when authorized.

(6) In peacetime, per MCO P8020.10A, the installation commander may authorize temporary field storage for up to 90 days. A review and approval of the ammunition storage plan are required from the supporting installation commander prior to beginning any field/combat operation.

(7) Area (grid coord.), quantity by Department of Defense identification number (DODIC), means of security, communication and transportation, and number of days site will be established must be provided to your higher headquarters.

c. Positioning. Ammunition at a firing site for routine field exercise expenditures over a one or two day period does not fall within the provisions of field storage. (Consult your local base SOP/Orders.) The following generally applies for this type of storage:

(1) Only those items and components by type and quantities required will be requisitioned and stored.

(2) Ammunition will not be stored in bivouac or billeting areas.

(3) Excessive break out of ammunition will be avoided.

(4) All original packing material will be retained until the end of the exercise.

(5) Ammunition will be placed on pallets or dunnage.

(6) Appropriate protective material (i.e. tarps and dunnage) will be available to protect ammunition from inclement weather.

(7) No smoking or fire producing items will be allowed within 50ft or in designated areas.

(8) Proper fire fighting equipment and trained personnel will be available.

(9) Continuous security will be provided.

(10) Separation of incompatible items will be accomplished.

(11) Communication will be established at the storage site.

8. HANDLING. The exactness required in all phases of manufacturing ammunition should not be negated by the manner

in which it is handled. Improper handling may result in the malfunctioning of the ammunition with possible loss of life, injury, and damage to property or material. Close supervision of personnel handling ammunition is mandatory, and where possible, ammunition technicians (MOS 2311) should supervise untrained personnel involved in handling ammunition. The following applies to handling ammunition:

a. Regulations for Handling. Procedures for handling ammunition are established by MCO P8020.10A and NAVSEA OP 5 VOL 3.

b. Packaging and Containers. Care must be taken when handling ammunition. Regardless of the durability of ammunition packaging and the ruggedness of containers, the relation of weight to cube is such that a drop from even a low height will damage the container and/or the contents. Damage to containers will result in loss of weather proofing, temperature or humidity control and possible loss of contents. Results of such handling may result in malfunctions during firing or unserviceability of ammunition.

c. Handling Guidance

(1) Handling of ammunition will be performed in a manner which will prevent shock or friction. Subjection to these factors may result in fire, explosion, damage, and possible malfunction.

(2) Do not unnecessarily expose ammunition to inclement weather or direct sunlight.

(3) Do not use or carry spark producing devices within 50 feet of ammunition and explosives.

(4) Do not smoke within 50 feet of any Class V(W) material.

(5) Use sound material handling equipment and, if stationary, such equipment will be grounded.

(6) Evidence that ammunition has been roughly handled or exposed to elements, and which indicates hazardous conditions, will be promptly reported and supervisory personnel will:

(a) Request assistance from qualified ammunition personnel.

(b) When conditions are obviously unsafe, request EOD personnel.

(c) Isolate suspected ammunition and mark it appropriately.

(d) Have unnecessary personnel and equipment cleared from the immediate area.

(e) When ammunition is rendered unserviceable due to using unit negligence, the ASP will initiate an investigation.